IN THE CLAIMS

Kindly replace the claims of record with the following full set of claims:

1.(Currently amended) [[A]] An injection molding process for the fabrication of a polymeric optical microstructure comprising the acts of:

supporting the microstructure by a thin walled substrate,

forming a thermoplastic mixture by blending a thermoplastic polymer with a UV curable resin and a thermally stable photo-initiator[[,]] to obtain a blend having a lower viscosity than the viscosity of said polymer with a highest allowable concentration of the polymer, wherein the thermoplastic polymer is selected as one having a ~~low~~ glass-to-rubber transition temperature, Tg, not lower than 50 degs. C. and a low weight-average molecular weight, M_w;

injection molding said blend; and

curing the molded blend by UV radiation to obtain the polymeric optical microstructure having a thickness to diameter ratio of the polymeric optical microstructure ~~is~~ from 1/50 to 1/1000.

2.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer has a weight-average molecular weight from 0.1 to 5 times the critical molecular weight for entanglement, M_{cr}.

3.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer contains a minor amount of reactive groups.

4.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer is an amorphous thermoplastic polymer.

5.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer is a copolymer or terpolymer.

6.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer is selected from the group, consisting of polyethylmethacrylate, polyhexylmethacrylate, polydecylmethacrylate, polymethylacrylate, polyethylacrylate, polyhexylacrylate, polydecylacrylate, polyvinylacatate, polystyrene, poly-α-methylstyrene, poly-α-ethylstyrene, polyester, cycloolefinic polymer and cyclo-olefinic copolymer.

7.(Previously presented) The process according to claim 1, wherein the concentration of the UV curable resin is from 20 – 80 vol.% of said blend.

8.(Previously presented) The process according to claim 1, wherein said UV curable resin is an epoxy resin including diglycidylether of bisphenol-A.

9.(Previously presented) The process according to claim 1, wherein said UV curable resin is selected from the group consisting of acrylates and methacrylates.

10.(Previously presented) The process according to claim 1, wherein said thermoplastic polymer and said UV curable resin show a substantially similar refractive index.

11.(Previously presented) The process according to claim 1, wherein said substrate consists of metal, polymer, silicon, glass or quartz-glass.

Claims 12-15 (Canceled)

16.(Original) The process of claim 1, wherein the polymeric optical microstructure has a thickness of less than 1 mm.

17.(Original) The process of claim 1, wherein the UV curable resin is selected from the group consisting of ethoxylated bisphenol-A dimethacrylate, hexanedioldiacrylate and polyethylenediacrylate.

18.(Original) The process of claim 1, wherein concentration of the UV curable resin is from 40 – 60 vol.% of said blend.

19.(Original) The process of claim 1, wherein vitrification of the thermoplastic mixture occurs at not lower than 50ºC.

20.(Original) The process of claim 1, wherein the thickness to diameter ratio of the polymeric optical microstructure is from 1/50 to 1/100.